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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,736	11/14/2006	Joachim Lohr	L7725.06113	8628

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EXAMINER

WIN, AUNG T

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,736	Applicant(s) LOHR ET AL.	
	Examiner AUNG WIN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) 1-41, 44, 48, 50, 52, 55, 59, 61 and 64-67, 70-74 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 42, 43, 45-47, 49, 51, 53, 54, 56-58, 60, 62, 63, 68 and 69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/09/2010 has been entered.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 63 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 63 recites an embodiment of the applicants' invention directed towards a computer readable medium storing instructions. It is noted, however, the recitation of the medium in the specification is not exclusory with respect to non-statutory medium types as no specific and limiting definition of "computer readable medium" is provided. Thus, under the broadest reasonable interpretation, the full claim scope of "computer readable medium" would include non-statutory mediums such as carrier waves.

The scope of "computer-readable medium" therefore includes signal-based mediums. A signal does not fall within one of the four statutory categories of invention

Art Unit: 2617

(i.e., process, machine, manufacture, or composition of matter) because it is an ephemeral, transient signal and thus is non-statutory. Since the scope of "computer-readable medium" includes these non-statutory instances, claims 29, 30 & 35 are directed to non-statutory subject matter.

Response to Arguments

Applicant's arguments with respect to pending claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 42, 53, 63, 43, 54, 45, 56, 46, 57, 47, 58, 49, 60, 68 & 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beckmann et al.

(US20040028078A1) in view of Cheng et al. (US20040228313A1), further in view of Walton et al. (US20040120411A1).

1.1 Regarding claim 42, Beckmann discloses a data transmission method for use in a mobile communication system, the method comprising:

Art Unit: 2617

establishing radio bearers between a mobile terminal and a radio access network of the mobile communication system [setting up or reconfiguring Radio Bearers: 0018 & 0028],

receiving, at the mobile terminal, radio bearer mapping information from the radio access network, wherein the radio bearer mapping information indicates for each of the radio bearers: (1) a priority to be assigned to a logical channel to which the respective radio bearer is to be mapped [RB mapping info comprises indications such as for the UL prioritization information for the logical channel using RRC protocol: paragraph 0034-0042] [receiving configuration message or reconfiguration message comprising RB mapping information: 0036 & 0037] [RB mapping information indicates a priority for mapping: 0038],

mapping the radio bearers to logical channels at the mobile terminal taking into account the received radio bearer mapping information, wherein mapping the radio bearers to logical channels comprises assigning to a logical channel on which a respective radio bearer is mapped the priority indicated in the radio bearer mapping information and multiplexing data of the logical channels to a signal transport channel and transmitting by the mobile terminal the multiplexed data of the logical channels on the transport channel [assigning radio bearers RBs into logical channels based on RB mapping information which includes priority information assigned to each logical channel for each RB, and further mapping logical channels to transport channels: 0035-

Art Unit: 2617

0038 & 0058] [more than one logical channels can be mapped to single transport channel i.e., Mapping logical channels to single transport channel: 0028].

As stated above Beckmann discloses assigning, mapping and multiplexing each of assigned logical channels for each of RBs to transport channels based on indicated priority information included in RB mapping information but does not teach that assigning, mapping and multiplexing each of assigned logical channels for each of RBs is also based on both priority and scheduling mode.

Cheng discloses a data transmission method comprising: assigning, mapping and multiplexing each of assigned logical channels for each of RBs to transport channels at the mobile terminal based on based on priority and scheduling modes [scheduling mode selector 442 based on indicated transmission parameter information: Figure 4, 0012, 0028 & 0029]. Thus, Cheng et al. discloses receiving transmitting parameter that indicates priority [transmission parameter from received signaling message may be priority indication parameter: 0028] and scheduling modes of the logical channel that is to be mapped [Based on transmission parameter from received signaling message, transmission mode for uplink transmission may be selected: 0029], and mapping logical channels to transport channel according to priority and scheduling modes [one or more logical channels to at least one transport channel for uplink transmission in accordance with the selected transmission mode: 0029].

Therefore, it would have been obvious to one of ordinary skilled in the art at the time when invention was made to modify Beckmann's the RB mapping information to indicate the scheduling mode of the mobile terminal in optional information element

Art Unit: 2617

indication slot [optional information element: 0043] to control the scheduling mode of mobile station as taught by Cheung in assigning, mapping and multiplexing each of assigned logical channels for each of RBs to transport channels at the mobile terminal based on based on priority and scheduling modes. One of ordinary skilled in the art at the time of invention of made would have been motivated to do this to optimize the network resource management by configuring mobile system to manage the mobile terminal's scheduling modes and its priorities.

It would have been obvious to one of ordinary skilled in the art that modified method and system would teach assigning, mapping and multiplexing each of assigned logical channels for each of RBs is based on priority and scheduling mode but does not explicitly teach that scheduling mode is comprised in received radio bearer mapping information, instead scheduling mode is determined from transmission parameter information comprised in received radio bearer mapping information.

Walton et al. discloses wireless data transmission system comprising mobile station configured to transmit uplink data utilizing uplink channels according to received uplink transmission mode indication associated with each uplink channel [Figures 9B & Figure 1, paragraph 0177]. Therefore, it would have been obvious to one of ordinary skilled in the art at the time invention was made to further modify the communications system and method to transmit scheduling mode indication associated to each logical channel to mobile station according to operation mode indication transmission method as taught by Walton so that assigning, mapping and multiplexing each of assigned logical channels for each of RBs is based on received priority and scheduling mode

Art Unit: 2617

indication as claimed. Determining scheduling mode at network side instead of mobile terminal side would have been an obvious matter of design choice and does not constitute patentable distinction from prior art radio bearer mapping method and system.

1.2 As regards to claim 53, it would have been obvious to one of ordinary skilled in the art that the mobile terminal as configured to operate according to modified system and method according to claim 1 would comprise units to process method steps accordingly as claimed because the mobile terminal as configured to operate according to modified system and method teaches establishing, receiving, mapping, multiplexing and transmitting steps substantially close to corresponding steps of claim 53.

1.3 In light of 101 rejection, Claim 63 is rejected for the same reason as stated above in Claim 42 & 53 rejections because claim 63 discloses method substantially close to corresponding method executed by processor of mobile terminal of claim 63. Mobile terminal as modified must comprise computer readable medium for storing instructions as claimed because mobile terminal is programmable electronic device.

1.4 As regards to claim 68, it would have been obvious to one of ordinary skilled in the art that modified system and method would comprise units to process method steps accordingly as claimed because modified system and method teaches establishing,

Art Unit: 2617

receiving, mapping, multiplexing, selecting and transmitting steps substantially close to corresponding steps of claim 53 [selecting TFC as modified in claim 42 & 53] [also see selecting TFC: 0018 & claim 8 of Beckmann & selecting TFC: 0038 of Cheng].

1.5 As regards to claim 69, it would have been obvious to one of ordinary skilled in the art that the mobile terminal as configured to operate according to modified system and method would comprise units to process method steps accordingly as claimed because the mobile terminal as configured to operate according to modified system and method teaches establishing, receiving, mapping, multiplexing, selecting and transmitting steps substantially close to corresponding steps of claim 53 [selecting TFC as modified in claim 42 & 53] [selecting TFC: 0018 & claim 8 of Beckmann] [selecting TFC: 0038 of Cheng].

1.6 As regards to Claims 43 & 54, it would have been obvious to one of ordinary skilled in the art that transmission method, system and mobile terminal as modified according to claims 42 and 53 would teach according to claims 43 & 54 because both Beckmann and Cheng discloses selecting unit the selects a transport format combination to be used for transmitting data based on at least the priority assigned to the logical channel [selecting TFC as modified in claim 42 & 53] [0038 & Figure 3 of Cheng] [selecting TFC: 0018 & claim 8 of Beckmann].

Art Unit: 2617

1.7 As regards to Claims 45 & 56, it would have been obvious to one of ordinary skilled in the art that transmission method, system and mobile terminal as modified would teach according to claims 45 & 56 because both Beckmann and Cheng discloses the data transmission method and mobile terminal, wherein transmitter transmits the data using the selected transport format combination [0038 & Figure 3 of Cheng] [selecting TFC: 0018 & claim 8 of Beckmann].

1.8 As regards to Claims 46 & 57, it would have been obvious to one of ordinary skilled in the art that the method, system and mobile terminal as modified teach multiplexing logical channels to transport channels based on priority and scheduling modes as claimed in claims 46 & 57 [see claim 42 rejection as modified in view of Cheng].

1.9 As regards to Claims 47 & 58, transmission method, system and mobile terminal as modified teaches that radio bearer mapping information is part of RRC signaling information [RB mapping info is negotiated by RRC layer: 0028 of Beckmann].

1.10 As regards to Claims 49 & 60, Beckmann does not explicitly disclose that the data is transmitted on enhanced dedicated uplink channel. But Cheng discloses that the data is transmitted on enhanced dedicated uplink channel [0021, 0031 & 0047]. Therefore, it would have been obvious to one of ordinary skilled in the art at the time

Art Unit: 2617

when invention was made to modify the system, method and mobile terminal to transmit data on enhanced dedicated uplink channel as claimed to enhance the system performance.

2. Claims 51 & 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beckmann et al. (US20040028078A1) in view of Cheng et al. (US20040228313A1), further in view of Walton et al. (US20040120411A1) further in view of Applicant's admitted prior art 3GPP TR 25.896 V6.0.0 (2004-03).

2.1 Regarding Claim 51 & 62, the method, system and mobile terminal as modified as taught by Cheng teaches that scheduling modes for mobile station is either autonomous and scheduling modes [0012 of Cheng] although Cheng does not explicitly disclose that disclosed autonomous and scheduling transmission modes are referring to a time and rate controlled scheduling mode or a rate controlled scheduling mode.

Admitted prior art teaches that co-existence of different scheduling modes is provided the flexibility in serving the different traffic types [section 7.1.2.4]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention of made to modify Cheng data transmission method to implement claimed scheduling mode as taught by 3GPP publication. One of ordinary skill in the art at the time of invention of made to do this to provide flexibility in serving the different traffic data types according to 3GPP standard.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AUNG WIN whose telephone number is (571)272-7549. The examiner can normally be reached on Monday-thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-760303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aung T Win/
Examiner, Art Unit 2617

/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2617